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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/090,576	03/05/2002	Kristina Helena Valborg Hedengren	RD-27247-4	8635

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GENERAL ELECTRIC COMPANY
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EXAMINER

MCCROSKY, DAVID J

ART UNIT	PAPER NUMBER
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3736

3

DATE MAILED: 12/17/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/090,576

Applicant(s)

HEDENGREN ET AL.

Examiner

David J. McCrosky

Art Unit

3736

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1,3-8 and 10-20 is/are rejected.
- 7) ☒ Claim(s) 2 and 9 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 March 2002 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
- a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Drawings

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the staggered sensor array that is offset circumferentially and axially (claims 5 and 12) must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character "22" has been used to designate both thermal sensor and electrical output lead (Fig. 2).

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Specification

The disclosure is objected to because of the following informalities: it appears that "divisional" in the first sentence of the specification should be changed to -- continuation-- and the patent number for the parent application should be added. A later application for a distinct or independent invention, carved out of a pending application and disclosing and claiming only subject matter disclosed in an earlier or parent application is known as a divisional application or "division." The claims of the parent are not distinct from the claims of the instant application. Appropriate correction is required.

Claim Objections

Claim 8 is objected to because of the following informalities: the comma (,) at the end of lines 9 and 15 should be replaced with a semicolon(;); the "and" in line 16 should be removed. Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1, 3, 4, 6, 7, 16 and 17 are rejected under 35 U.S.C. 102(e) as being anticipated by Kreizman et al (cited by Applicant). The reference discloses a rod with an outer insulating layer (42) having a plurality of spaced holes and a common electrical lead (26f). A plurality of thermal sensors (18a-18e), placed in the holes and in a staggered array, is in electrical contact with the common electrical lead and a plurality of output leads (20a-20e). See Fig. 1D. A means for collecting output signals (72) is illustrated in Fig. 8B.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kreizman et al as applied to claim 1 above. Kreizman et al teach an apparatus as recited for claim 1 but do not disclose a staggered sensor array that is circumferentially and axially offset. It would have been an obvious matter of design choice to modify the sensor array by making circumferentially and axially offset placement since Applicant has not disclosed that having a circumferentially and axially offset sensor array solves any stated problem or is for any particular purpose and it appears that the apparatus would perform equally well with a sensor array in any configuration.

Claims 8, 10, 11, 13-15, 19 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kreizman et al in view of Yoon. Kreizman et al disclose a rod with an outer insulating layer (42) having a plurality of spaced holes and a common electrical lead (26f). A plurality of thermal sensors (18a-18e), placed in the holes and in a staggered array, is in electrical contact with the common electrical lead and a plurality of output leads (20a-20e). See Fig. 1D. A means for collecting output signals (72) is

illustrated in Fig. 8B. Kreizman et al do not teach a hollow needle. Yoon discloses a hollow needle insertable into biological matter and adapted to receive a probe. See abstract. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the assembly of Kreizman et al with the hollow needle of Yoon to facilitate placement of sensors in the tissue.

Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kreizman et al in view of Yoon as applied to claim 8 above. Kreizman et al and Yoon teach an apparatus as recited for claim 8 but do not disclose a staggered sensor array that is circumferentially and axially offset. It would have been an obvious matter of design choice to modify the sensor array by making circumferentially and axially offset placement since Applicant has not disclosed that having a circumferentially and axially offset sensor array solves any stated problem or is for any particular purpose and it appears that the apparatus would perform equally well with a sensor array in any configuration.

Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kreizman et al as applied to claims 16 and 17 above, and further in view of van Hollen. Kreizman et al teach a method as recited for claims 16 and 17 but do not teach determining what type of tumor may exist. Van Hollen discloses a method of measuring temperature to determine the presence and type of a tumor. See col. 4, ll. 40-51. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the method of Kreizman et al with the step of determining what type of tumor may exist, as taught by van Hollen to facilitate diagnosis.

Art Unit: 3736

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 19 and 20 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1 and 2 of U.S. Patent No. 6,419,635 to Hedengren et al. Although the conflicting claims are not identical, they are not patentably distinct from each other because Applicant has claimed subject matter broader than Hedengren et al. Any method meeting the claims of Hedengren et al would necessarily meet those of the instant application.

Allowable Subject Matter

Claims 2 and 9 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter: the prior art does not teach a temperature probe having a common electrical input lead in the form of a hollow tube.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Daily teaches a needle with a temperature probe contained therein. Vaguine discloses measuring temperature at spaced apart locations.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to David J. McCrosky whose telephone number is 703-305-1331. The examiner can normally be reached on Mon-Fri 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Max F. Hindenburg can be reached on 703-308-3130. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9302.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0858.

DJM


MAX F. HINDENBURG
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3700